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59th annual ratio study compiled from the operating statements and balance sheets submitted by representative members of the printing industry, and computed by RGS Enterprises, Inc., 330-332 East 25th Street, Baltimore, Maryland 21218.

1982 Financial Ratios
All Printers by Geographic Region

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Printing Industries of America Inc.

Management Services Department
1730 North Lynn Street
Arlington, Virginia 22209

Edited and Prepared by H. R. Margolis Company,
Certified Public Accountants
New York and Philadelphia (Bala Cynwyd)

Printed in U.S.A.

H. R. MARGOLIS COMPANY
CERTIFIED PUBLIC ACCOUNTANTS

Offices:
PHILADELPHIA
NEW YORK

Dear Member of the Graphic Arts Community:

Again in 1982, it is our pleasure to present to you PIA's Financial Ratio Studies. This year, a total of 944 firms representing various segments of the graphic arts industry in the United States and Canada participated in these studies by responding to PIA's questionnaire on financial performance. Such widespread participation has made these annual PIA Ratio Studies the most comprehensive financial reports available on the health of the graphic arts industry.

This book presents the financial status of graphic arts firms according to geographic area -- for example, New England and Up-State New York, Metropolitan New York and New Jersey, etc. Readers can compare the data from their own firm's financial statements with similar data from other firms located in the same geographic area in five areas: Operations based on Value Added and its Supporting Schedules, Operations based on Sales and its Supporting Schedules, Balance Sheet Ratios, Significant Facts, and Return on Investment.

We strongly believe in the importance of sharing this type of information among members of the graphic arts community and are proud to have played a role in compiling these studies. Moreover, we commend PIA and its staff for their continuing sponsorship of these studies and for the help that they have so graciously provided in their completion.

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1982 is the 59th consecutive year in which Printing Industries of America, Inc. has collected, compiled and published detailed financial ratio information for members of the graphic arts community. The data presented each year provide a detailed and comprehensive picture of the financial status of the major segments of the graphic arts industries, as well as allowing individual firms to compare their annual performance with that of many other similar firms, including those which earn well above average profits. Ratio results for several different segments of our industry are available in book form. In 1982 these books include:

- All Printers by Sales Volume
  + Management Guide to the Ratios
- All Printers by Product Specialty
- Quick Printers
- Printers by Geographic Area
- Sheetfed Printers, by Size and Geographic Area
- Web Offset Printers, Heatset and Non-heatset
- Book Manufacturers
- Large Printers (over $10 million in sales)
- Specialists: Typographers
  Litho Prep Specialists
- Binders

If you are using the Ratios to analyze your company's performance, it is usually advisable to use the data from at least two of these books as standards of comparison. Such analysis is made much easier by participating in the Studies early each year and ordering an individual company computer printout, which compares a participant's ratios to those of companies which are similar in size, production equipment, markets and other key features. If using only the Ratio books, be careful in comparing your firm's performance to that of the "mixed bag" of printers whose results are summarized in *All Printers by Sales Volume*.

Please refer your questions on the PIA Ratio Studies to your nearest local PIA affiliated association, or to

Bill Howe
Director Management Services
Printing Industries of America, Inc.
1730 N. Lynn Street
Arlington, VA 22209 — 703-841-8136

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What is Value Added?

Value Added is a technical term for sales of your company's own manufacture. It is calculated as sales less material costs and outside purchases.

SALES		$100
LESS: MATERIALS		
Paper	$22	
Other chargeable materials	6	
Outside services	7	
		35
VALUE ADDED		$ 65

The relationship between Value Added and profit performance stems from one basic principle of accounting: Profit is achieved from sales of your company's own manufacture. To successfully use the Value Added concept in achieving profit objectives, your printing firm would be wise to do everything inside its own plant that it is capable of doing.

"Good Sales" and "Better Sales"

Within any relevant range of operations, for example, $800,000 to $1,000,000 of annual sales, a printing firm's total expenses do not significantly change. This means that inside sales -- those providing Value Added -- are the ones that pay overhead costs and provide a profit. What all printing firms should do then, is to maximize their Value Added.

Value Added

All sales, however, do not contribute equally to fixed costs and profits. While there are no "bad sales" in the printing industry, there are "good sales" and "better sales." Good sales are those that require more than an average amount of materials and outside services. Their Value Added comes from the mark-up on materials, cost center costs, and profit. However, such sales contribute little to cover fixed costs and to provide a profit. On the other hand, better sales require fewer materials and outside services and have a greater amount of the more critical inside sales. As a result, they pay more dollars to cover overhead and to provide a profit.

Profit and Loss Statements

In keeping with the Value Added concept, profit and loss statements are more meaningful when prepared on the basis of inside sales. Take, for example, the following two companies. One company has sales of $125,000 per month and produces $65,000 of Value Added. The other company has sales of $90,000 that provide $75,000 of Value Added. Even though its sales are lower, the second company yields $10,000 more with which to cover overhead. All too frequently, printing firms consider sales as the sole criterion of profit when, in fact, Value Added is always the better indicator.

Salesmen's Compensation

The concept of Value Added also has an important ramification as to how printing companies compensate their salesmen. A typical commission based on total sales dollars, regardless of Value Added, provides little motivation for salesmen to seek out better sales -- those with a higher percentage of Value Added. Furthermore, when salesmen do bring in the better sales, they are not properly rewarded for obtaining jobs that are particularly profitable. Basing compensation on Value Added is a much more equitable system for both the company and its salesmen.

Materials Mark-Up

Finally, Value Added gives printing firms a system with which to recover both direct and indirect overhead associated with materials mark-up handling. For example, if a printing firm's policy is to mark up the total cost of all jobs by 10 percent, it is ignoring the concept of Value Added. A sounder policy is to institute materials as a cost center and then to establish a mark up policy based on the material portion of the job.

ALL PRINTERS BY GEOGRAPHIC REGION

REPORT ON OPERATIONS - VALUE ADDED = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
SALES OR VALUE OF PRODUCT PRODUCED	X	X	X
LESS: PAPER, OTHER CHARGEABLE MATERIALS AND OUTSIDE SERVICES	X	X	X
VALUE ADDED BY MANUFACTURE	100.00%	100.00%	100.00%
FACTORY PAYROLL	44.31	40.87	44.58
FACTORY EXPENSES	20.71	18.93	19.29
TOTAL FACTORY COST OF PRODUCT	65.02	59.80	63.87
GROSS PROFIT	34.98	40.20	36.13
ADMINISTRATIVE AND SELLING EXPENSES			
Administrative expenses	16.41	18.53	15.53
Selling expenses	11.35	11.78	12.05
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	27.76	30.31	27.58
INCOME BEFORE INTEREST EXPENSE	7.22	9.89	8.55
Interest expense	2.88	2.92	2.82
OPERATING INCOME	4.34	6.97	5.73
Other income	1.39	1.07	1.06
INCOME BEFORE INCOME TAXES	5.73	8.04	6.79

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
42.91	46.48	41.46	43.62	44.75	41.97	40.77	42.10	42.15
20.36	18.93	20.43	19.99	19.19	20.75	21.34	18.09	17.85
63.27	65.41	61.89	63.61	63.94	62.72	62.11	60.19	60.00
36.73	34.59	38.11	36.39	36.06	37.28	37.89	39.81	40.00
15.25	15.09	17.11	14.19	15.53	16.81	17.41	18.05	14.42
12.38	11.83	13.06	13.91	11.89	11.22	13.33	12.69	11.98
27.63	26.92	30.17	28.10	27.42	28.03	30.74	30.74	26.40
9.10	7.67	7.94	8.29	8.64	9.25	7.15	9.07	13.60
3.07	3.49	2.88	2.60	3.90	3.52	2.89	3.29	4.23
6.03	4.18	5.06	5.69	4.74	5.73	4.26	5.78	9.37
0.74	1.03	1.75	0.95	1.27	2.24	1.15	1.26	1.55
6.77	5.21	6.81	6.64	6.01	7.97	5.41	7.04	10.92

ALL PRINTERS BY GEOGRAPHIC REGION

SUPPORTING SCHEDULES - VALUE ADDED = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
FACTORY PAYROLL			
Salaries - executive	3.22%	3.47%	2.54%
Direct wages	28.50	23.62	29.20
General factory salaries and wages	5.12	6.15	4.77
Packing, shipping and delivery wages	1.31	1.18	1.42
Payroll taxes	3.03	2.48	3.05
Employee benefits	3.13	3.97	3.60
TOTAL FACTORY PAYROLL	44.31	40.87	44.58
FACTORY EXPENSES			
Fixed Expenses			
Depreciation - real estate	0.38	0.27	0.41
Depreciation - other	4.67	4.97	3.72
Taxes - real estate	0.33	0.25	0.28
Taxes - other	0.18	0.09	0.14
Insurance	1.00	1.25	1.17
Building rent	2.44	2.96	2.28
Utilities - heat, light, etc.	2.27	2.39	2.07
Equipment rental	0.64	0.20	0.96
Total Fixed Expenses	11.91	12.38	11.03
Other Expenses			
Factory supplies and expense	3.61	3.46	3.60
Packing, shipping and delivery expense	1.80	0.58	1.70
Repairs and maintenance	1.99	1.96	1.87
Other factory expenses	1.40	0.55	1.09
Total Other Expenses	8.80	6.55	8.26
TOTAL FACTORY EXPENSES	20.71	18.93	19.29
ADMINISTRATIVE EXPENSES			
Salaries - executive	4.97	6.39	4.54
Salaries - office	4.38	4.68	3.76
Payroll taxes	0.70	0.59	0.58
Employee benefits	1.03	1.08	1.01
Bad debts	0.43	0.59	0.58
Office supplies and expenses	0.83	0.75	0.77
Professional fees	0.82	1.03	0.97
Taxes - business	0.24	0.44	0.18
Telephone	0.74	0.79	0.88
Other administrative expenses	2.27	2.19	2.26
TOTAL ADMINISTRATIVE EXPENSES	16.41	18.53	15.53
SELLING EXPENSES			
Salaries - executive	1.78	1.81	2.17
Salaries and commissions - salesmen	5.00	4.64	5.05
Salaries - sales office clerical	0.83	0.67	0.76
Payroll taxes	0.49	0.38	0.45
Employee benefits	0.51	0.42	0.56
Advertising	0.49	0.90	0.53
Travel and entertainment	1.45	1.31	1.44
Other selling expenses	0.80	1.65	1.09
TOTAL SELLING EXPENSES	11.35	11.78	12.05

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
3.80%	3.89%	3.21%	2.92%	2.98%	4.11%	2.78%	2.62%	3.04%
28.09	27.86	27.57	27.87	30.09	27.18	27.60	26.59	30.57
4.31	5.35	3.71	4.72	4.54	4.44	4.01	5.27	4.09
1.36	1.45	1.34	1.62	1.11	1.32	1.26	1.13	1.34
2.84	3.37	2.65	2.78	2.81	2.63	2.84	3.22	0.96
2.51	4.56	2.98	3.71	3.22	2.29	2.28	3.27	2.15
42.91	46.48	41.46	43.62	44.75	41.97	40.77	42.10	42.15
0.33	0.60	0.53	0.41	0.46	0.31	0.20	0.62	0.46
5.08	4.38	4.29	4.33	4.31	4.96	3.90	4.30	4.52
0.34	0.29	0.22	0.43	0.28	0.20	0.19	0.21	0.46
0.35	0.58	0.44	0.18	0.13	0.49	0.42	0.38	0.14
0.98	0.81	0.86	0.89	0.86	0.96	1.15	0.83	0.53
1.97	1.75	2.28	1.88	2.03	2.47	3.47	2.82	2.29
2.06	1.92	1.80	2.05	1.74	1.81	1.59	1.23	1.24
1.38	0.73	1.03	0.41	1.15	2.20	1.85	0.56	0.95
12.49	11.06	11.45	10.58	10.96	13.40	12.77	10.95	10.59
3.27	3.25	3.54	3.45	3.37	2.72	3.28	2.83	2.35
1.37	1.65	1.94	2.59	1.84	1.51	1.45	1.61	1.72
2.36	1.84	2.23	1.85	1.74	2.07	2.49	1.85	2.26
0.87	1.13	1.27	1.52	1.28	1.05	1.35	0.85	0.93
7.87	7.87	8.98	9.41	8.23	7.35	8.57	7.14	7.26
20.36	18.93	20.43	19.99	19.19	20.75	21.34	18.09	17.85
4.97	4.21	5.70	3.77	5.59	5.57	5.31	5.49	3.45
3.71	3.74	3.91	3.73	3.50	3.97	4.44	3.85	4.37
0.54	0.79	0.66	0.54	0.51	0.63	0.66	0.73	0.17
0.60	0.81	1.07	1.09	0.92	0.65	0.82	1.17	0.39
0.58	0.55	0.59	0.33	0.46	0.75	0.83	0.73	0.90
0.84	0.52	0.76	0.61	0.60	0.72	0.96	0.89	0.98
0.73	0.92	0.86	0.85	0.82	0.87	1.05	0.99	1.04
0.34	0.60	0.34	0.24	0.04	0.26	0.23	0.83	0.24
0.97	0.70	0.78	0.70	0.62	0.76	0.83	0.69	0.74
1.97	2.25	2.44	2.33	2.47	2.63	2.28	2.68	2.14
15.25	15.09	17.11	14.19	15.53	16.81	17.41	18.05	14.42
1.99	1.89	2.30	2.55	2.04	2.10	2.09	1.92	1.76
5.37	4.49	5.37	5.77	5.59	4.71	5.96	5.68	5.55
1.04	1.43	0.97	0.87	0.76	1.01	0.48	0.71	0.99
0.50	0.45	0.45	0.47	0.42	0.37	0.48	0.56	0.14
0.41	0.64	0.65	0.54	0.50	0.31	0.47	0.57	0.28
0.70	0.56	0.93	0.56	0.47	0.94	0.93	0.90	0.76
1.38	1.16	1.35	1.71	1.25	1.12	1.41	1.67	1.53
0.99	1.21	1.04	1.44	0.86	0.66	1.51	0.68	0.97
12.38	11.83	13.06	13.91	11.89	11.22	13.33	12.69	11.98

ALL PRINTERS BY GEOGRAPHIC REGION

REPORT ON OPERATIONS - SALES = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
SALES OR VALUE OF PRODUCT PRODUCED	100.00%	100.00%	100.00%
FACTORY COST OF PRODUCT			
MATERIAL			
Paper	21.64	20.11	22.69
Other chargeable materials	5.20	6.10	5.84
Outside services	6.88	10.36	8.97
TOTAL MATERIAL	33.72	36.57	37.50
FACTORY PAYROLL	29.42	26.09	27.88
FACTORY EXPENSES	13.64	11.75	11.95
TOTAL FACTORY COST OF PRODUCT	76.78	74.41	77.33
GROSS PROFIT	23.22	25.59	22.67
ADMINISTRATIVE AND SELLING EXPENSES			
Administrative expenses	10.94	11.43	9.69
Selling expenses	7.50	7.41	7.49
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	18.44	18.84	17.18
INCOME BEFORE INTEREST EXPENSE	4.78	6.75	5.49
Interest expense	1.89	1.76	1.69
OPERATING INCOME	2.89	4.99	3.80
Other income	0.89	0.59	0.61
INCOME BEFORE INCOME TAXES	3.78	5.58	4.41

SUPPORTING SCHEDULES - SALES = 100%

OTHER CHARGEABLE MATERIALS			
Ink	1.70%	1.55%	1.57%
Film	1.21	1.24	1.09
Plates	1.45	2.22	1.45
Other chargeable materials	0.84	1.09	1.73
TOTAL OTHER CHARGEABLE MATERIALS	5.20	6.10	5.84
OUTSIDE SERVICES			
Composition	0.67	1.24	1.42
Offset preparation	1.02	0.83	1.04
Printing	1.57	0.61	1.29
Binding	2.09	6.09	2.88
Other outside services	1.53	1.59	2.34
TOTAL OUTSIDE SERVICES	6.88	10.36	8.97

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
22.94	24.40	23.41	22.25	24.99	21.36	21.48	21.72	25.06
5.79	5.08	5.07	6.05	5.37	6.86	4.30	4.21	5.58
6.95	5.13	8.51	8.23	6.27	7.57	9.56	10.83	7.78
35.68	34.61	36.99	36.53	36.63	35.79	35.34	36.76	38.42
27.56	30.28	26.07	27.42	28.32	26.76	26.18	26.72	25.81
13.10	12.33	12.94	12.69	12.20	13.41	13.81	11.37	11.03
76.34	77.22	76.00	76.64	77.15	75.96	75.33	74.85	75.26
23.66	22.78	24.00	23.36	22.85	24.04	24.67	25.15	24.74
9.87	10.03	10.83	9.16	9.98	10.82	11.38	11.46	8.98
7.94	7.73	8.21	8.88	7.52	7.23	8.37	7.98	7.37
17.81	17.76	19.04	18.04	17.50	18.05	19.75	19.44	16.35
5.85	5.02	4.96	5.32	5.35	5.99	4.92	5.71	8.39
1.97	2.28	1.78	1.62	2.46	2.19	1.83	2.06	2.57
3.88	2.74	3.18	3.70	2.89	3.80	3.09	3.65	5.82
0.52	0.67	1.09	0.56	0.77	1.51	0.62	0.76	0.85
4.40	3.41	4.27	4.26	3.66	5.31	3.71	4.41	6.67

1.58%	1.30%	1.97%	2.27%	2.55%	1.26%	1.23%	1.17%	1.78%
1.77	1.39	0.75	1.26	0.69	1.19	0.77	1.08	1.22
1.37	0.83	1.26	1.38	1.17	1.33	1.01	0.90	1.12
1.07	1.56	1.09	1.14	0.96	3.08	1.29	1.06	1.46
5.79	5.08	5.07	6.05	5.37	6.86	4.30	4.21	5.58
0.77	0.59	0.87	0.48	0.47	0.93	0.67	1.92	1.22
1.20	1.04	1.76	1.41	2.05	0.92	2.14	1.11	1.67
2.51	0.90	1.80	3.46	1.40	2.61	3.07	3.03	2.17
0.74	1.58	1.93	1.39	1.22	1.23	1.81	2.25	1.73
1.73	1.02	2.15	1.49	1.13	1.88	1.87	2.52	0.99
6.95	5.13	8.51	8.23	6.27	7.57	9.56	10.83	7.78

ALL PRINTERS BY GEOGRAPHIC REGION

SUPPORTING SCHEDULES - SALES = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
FACTORY PAYROLL			
Salaries - executive	2.16%	2.25%	1.60%
Direct wages	18.82	14.96	18.22
General factory salaries and wages	3.49	4.01	2.99
Packing, shipping and delivery wages	0.85	0.67	0.89
Payroll taxes	2.01	1.56	1.91
Employee benefits	2.09	2.64	2.27
TOTAL FACTORY PAYROLL	29.42	26.09	27.88
FACTORY EXPENSES			
Fixed Expenses			
Depreciation - real estate	0.25	0.16	0.27
Depreciation - other	3.07	3.04	2.31
Taxes - real estate	0.22	0.14	0.18
Taxes - other	0.12	0.06	0.08
Insurance	0.67	0.77	0.72
Building rent	1.60	1.82	1.41
Utilities - heat, light, etc.	1.50	1.51	1.27
Equipment rental	0.42	0.16	0.58
Total Fixed Expenses	7.85	7.66	6.82
Other Expenses			
Factory supplies and expense	2.37	2.13	2.26
Packing, shipping and delivery expense	1.16	0.37	1.07
Repairs and maintenance	1.31	1.23	1.14
Other factory expenses	0.95	0.36	0.66
Total Other Expenses	5.79	4.09	5.13
TOTAL FACTORY EXPENSES	13.64	11.75	11.95
ADMINISTRATIVE EXPENSES			
Salaries - executive	3.36	4.01	2.81
Salaries - office	2.91	2.69	2.39
Payroll taxes	0.47	0.37	0.36
Employee benefits	0.68	0.67	0.62
Bad debts	0.28	0.44	0.36
Office supplies and expenses	0.55	0.48	0.48
Professional fees	0.54	0.63	0.61
Taxes - business	0.16	0.24	0.11
Telephone	0.49	0.49	0.54
Other administrative expenses	1.50	1.41	1.41
TOTAL ADMINISTRATIVE EXPENSES	10.94	11.43	9.69
SELLING EXPENSES			
Salaries - executive	1.18	1.07	1.36
Salaries and commissions - salesmen	3.31	2.94	3.14
Salaries - sales office clerical	0.55	0.42	0.48
Payroll taxes	0.33	0.24	0.28
Employee benefits	0.33	0.27	0.35
Advertising	0.33	0.57	0.33
Travel and entertainment	0.95	0.85	0.87
Other selling expenses	0.52	1.05	0.68
TOTAL SELLING EXPENSES	7.50	7.41	7.49

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
2.46%	2.51%	2.03%	1.86%	1.91%	2.68%	1.76%	1.65%	1.90%
18.11	18.09	17.16	17.53	19.14	17.33	17.83	16.87	18.70
2.73	3.57	2.49	2.96	2.79	2.76	2.50	3.36	2.56
0.85	0.94	0.84	1.00	0.70	0.86	0.81	0.73	0.78
1.82	2.18	1.68	1.76	1.78	1.67	1.83	2.02	0.59
1.59	2.99	1.87	2.31	2.00	1.46	1.45	2.09	1.28
27.56	30.28	26.07	27.42	28.32	26.76	26.18	26.72	25.81
0.21	0.41	0.33	0.27	0.29	0.20	0.13	0.39	0.28
3.23	2.81	2.66	2.74	2.76	3.12	2.48	2.70	2.74
0.22	0.19	0.14	0.27	0.17	0.13	0.13	0.13	0.28
0.23	0.37	0.27	0.11	0.08	0.32	0.27	0.23	0.08
0.63	0.54	0.54	0.56	0.56	0.61	0.75	0.53	0.33
1.29	1.16	1.46	1.20	1.32	1.63	2.26	1.80	1.47
1.32	1.26	1.13	1.29	1.06	1.14	1.03	0.77	0.76
0.92	0.46	0.72	0.28	0.72	1.54	1.25	0.36	0.70
8.05	7.20	7.25	6.72	6.96	8.69	8.30	6.91	6.64
2.11	2.09	2.23	2.18	2.11	1.74	2.11	1.77	1.43
0.88	1.12	1.21	1.62	1.21	0.98	0.95	0.99	1.05
1.50	1.18	1.42	1.19	1.08	1.32	1.61	1.18	1.35
0.56	0.74	0.83	0.98	0.84	0.68	0.84	0.52	0.56
5.05	5.13	5.69	5.97	5.24	4.72	5.51	4.46	4.39
13.10	12.33	12.94	12.69	12.20	13.41	13.81	11.37	11.03
3.27	2.88	3.58	2.41	3.58	3.63	3.54	3.45	2.15
2.38	2.45	2.50	2.38	2.25	2.52	2.89	2.46	2.75
0.35	0.52	0.42	0.34	0.33	0.40	0.44	0.47	0.11
0.38	0.54	0.67	0.72	0.56	0.42	0.53	0.75	0.24
0.36	0.35	0.36	0.21	0.30	0.46	0.51	0.48	0.54
0.54	0.34	0.48	0.39	0.38	0.47	0.63	0.56	0.61
0.47	0.61	0.54	0.54	0.52	0.56	0.68	0.64	0.66
0.22	0.39	0.22	0.15	0.03	0.16	0.14	0.51	0.15
0.62	0.45	0.50	0.44	0.40	0.49	0.52	0.44	0.47
1.28	1.50	1.56	1.58	1.63	1.71	1.50	1.70	1.30
9.87	10.03	10.83	9.16	9.98	10.82	11.38	11.46	8.98
1.27	1.28	1.47	1.64	1.33	1.36	1.34	1.21	1.10
3.44	2.91	3.33	3.66	3.52	2.98	3.70	3.59	3.37
0.67	0.92	0.62	0.59	0.47	0.67	0.29	0.42	0.60
0.32	0.29	0.29	0.30	0.26	0.24	0.30	0.35	0.09
0.26	0.42	0.40	0.33	0.30	0.20	0.29	0.36	0.17
0.46	0.38	0.61	0.37	0.31	0.63	0.63	0.58	0.50
0.88	0.74	0.85	1.08	0.79	0.72	0.89	1.05	0.94
0.64	0.79	0.64	0.91	0.54	0.43	0.93	0.42	0.60
7.94	7.73	8.21	8.88	7.52	7.23	8.37	7.98	7.37

ALL PRINTERS BY GEOGRAPHIC REGION

BALANCE SHEET

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
ASSETS			
CURRENT ASSETS -			
Cash	6.40%	11.59%	8.92%
Receivables	30.08	33.18	34.09
Inventories	14.13	14.06	13.05
Other current assets	6.75	2.98	5.00
TOTAL CURRENT ASSETS	57.36	61.81	61.06
FIXED ASSETS			
Real estate	9.35	6.03	9.42
Less: Accumulated depreciation	3.08	0.99	2.42
	6.27	5.04	7.00
Machinery and equipment	64.89	65.28	61.58
Less: Accumulated depreciation	36.00	39.83	35.70
	28.89	25.45	25.88
Other fixed assets	8.40	10.84	5.78
Less: Accumulated depreciation	4.74	5.42	3.19
	3.66	5.42	2.59
NET FIXED ASSETS	38.82	35.91	35.47
OTHER ASSETS	3.82	2.28	3.47
TOTAL ASSETS	100.00	100.00	100.00
LIABILITIES AND EQUITY			
CURRENT LIABILITIES			
Notes payable	8.33	6.43	8.63
Accounts payable	15.14	16.96	15.77
Other current liabilities	9.18	9.67	9.13
TOTAL CURRENT LIABILITIES	32.65	33.06	33.53
LONG-TERM LIABILITIES	26.20	17.18	23.26
TOTAL LIABILITIES	58.85	50.24	56.79
SHAREHOLDERS' AND PROPRIETORS' EQUITY	41.15	49.76	43.21
TOTAL LIABILITIES AND EQUITY	100.00	100.00	100.00

BALANCE SHEET RATIOS

CURRENT RATIO	1.76	1.87	1.82
QUICK RATIO	1.32	1.44	1.43
TOTAL LIABILITIES TO EQUITY	1.43	1.01	1.31
LONG-TERM LIABILITIES TO EQUITY	0.64	0.35	0.54
ACCUMULATED DEPRECIATION - MACHINERY AND EQUIPMENT TO TOTAL MACHINERY AND EQUIPMENT	0.55	0.61	0.58

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
7.59%	4.56%	8.59%	6.88%	6.48%	9.66%	9.19%	7.50%	3.07%
28.99	32.27	29.74	32.39	30.49	31.55	33.03	30.39	36.11
13.75	14.16	15.22	16.87	13.84	12.54	10.45	13.78	14.73
4.26	4.91	4.79	4.00	4.98	3.86	3.79	4.46	4.48
54.59	55.90	58.34	60.14	55.79	57.61	56.46	56.13	58.39
7.86	15.46	10.43	11.41	11.18	9.54	5.58	8.20	10.22
2.66	5.02	3.20	3.70	2.75	2.63	1.93	2.50	2.25
5.20	10.44	7.23	7.71	8.43	6.91	3.65	5.70	7.97
65.93	63.34	61.01	64.31	60.59	61.58	61.89	56.87	57.41
33.58	36.45	34.33	39.43	31.87	33.77	31.63	28.86	29.98
32.35	26.89	26.68	24.88	28.72	27.81	30.26	28.01	27.43
8.20	5.90	8.61	5.67	5.80	7.41	7.72	8.70	4.42
3.47	2.74	4.30	2.96	3.11	3.58	3.59	4.10	2.32
4.73	3.16	4.31	2.71	2.69	3.83	4.13	4.60	2.10
42.28	40.49	38.22	35.30	39.84	38.55	38.04	38.31	37.50
3.13	3.61	3.44	4.56	4.37	3.84	5.50	5.56	4.11
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
8.09	7.90	9.20	9.23	8.63	7.42	7.35	8.75	9.47
12.20	12.42	14.01	13.84	11.94	12.43	14.00	11.65	18.36
6.74	10.51	9.00	8.67	10.43	8.05	9.51	10.75	10.90
27.03	30.83	32.21	31.74	31.00	27.90	30.86	31.15	38.73
28.44	26.28	24.47	23.73	29.30	24.17	25.64	26.76	26.22
55.47	57.11	56.68	55.47	60.30	52.07	56.50	57.91	64.95
44.53	42.89	43.32	44.53	39.70	47.93	43.50	42.09	35.05
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
2.02	1.81	1.81	1.89	1.80	2.06	1.83	1.80	1.51
1.51	1.35	1.34	1.36	1.35	1.62	1.49	1.36	1.13
1.25	1.33	1.31	1.25	1.52	1.09	1.30	1.38	1.85
0.64	0.61	0.56	0.53	0.74	0.50	0.59	0.64	0.75
0.51	0.58	0.56	0.61	0.53	0.55	0.51	0.51	0.52

ALL PRINTERS BY GEOGRAPHIC REGION

SIGNIFICANT FACTS

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
INVESTMENT			
Average assets per employee - All employees	$ 27,389	$ 38,685	$ 29,674
Average assets per factory employee (Excluding Executives)	44,513	58,106	40,456
Average net worth per employee - All employees	11,652	20,138	12,926
Average gross plant investment per factory employee (Excluding Executives)	35,353	45,399	30,317
Net worth percentage of fixed assets	122.87%	350.91%	155.81%
EMPLOYEES			
Percent factory - All employees	75.72%	73.83%	76.83%
Percent administrative - All employees	14.44	17.64	13.63
Percent sales - All employees	9.84	8.53	9.54
SALES - VALUE OF PRODUCT PRODUCED INCLUDING EXECUTIVES			
Sales per employee - All employees	$ 51,424	$ 79,400	$ 62,070
Sales per factory employee	72,194	109,945	82,429
Sales less material per factory employee	47,655	68,589	50,112
Sales per administrative employee	443,671	615,035	588,863
EXCLUDING EXECUTIVES			
Sales per employee - All employees	57,932	89,923	69,248
Sales per factory employee	82,476	119,411	86,179
Sales less material per factory employee	54,875	75,142	52,443
SALES PER SALESMAN	815,269	676,702	739,115
SALES TO CURRENT ASSETS	380%	399%	393%
PAYROLL - INCLUDING TAXES AND BENEFITS INCLUDING EXECUTIVES			
Total payroll percentage of sales	42.53%	38.76%	39.68%
Factory payroll percentage of gross plant investment	79.22	86.56	95.06
Payroll per employee - All employees	$ 21,324	$ 29,331	$ 23,696
Payroll per factory employee	20,854	27,116	21,685
Payroll per administrative employee	26,422	33,968	28,259
Payroll per sales employee	30,747	42,307	37,999
PAYROLL - EXCLUDING TAXES AND BENEFITS EXCLUDING EXECUTIVES			
Payroll per employee - All employees	$ 16,959	$ 21,526	$ 18,505
Payroll per factory employee	18,988	21,743	17,907
Payroll per administrative employee	13,972	16,060	14,776
Payroll per sales employee	24,268	29,840	28,176
EXECUTIVE PAYROLL			
Payroll per executive - All executives	42,741	55,570	46,740
Payroll per factory executive	27,788	31,550	27,139
Payroll per administrative executive	49,311	67,823	49,106
Payroll per sales executive	30,033	46,989	36,871
RECEIVABLES			
Collection period	54.1	54.5	56.1
PROFIT			
Gross profit percentage of sales	23.22%	25.59%	22.67%
Average gross profit per factory employee	$ 19,418	$ 32,087	$ 19,847
Income before taxes percentage of sales	3.78%	5.58%	4.41%
Average income before taxes per employee	$ 2,148	$ 5,244	$ 2,985

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
$ 23,311	$ 26,429	$ 27,886	$ 37,777	$ 33,171	$ 28,462	$ 27,012	$ 37,730	$ 36,652
33,721	39,605	39,770	77,519	50,747	41,339	44,040	71,664	53,304
10,288	11,900	12,288	17,509	12,733	13,327	10,894	14,835	13,763
27,024	33,659	30,847	57,966	38,602	32,638	32,025	46,041	37,145
130.90%	131.48%	145.34%	167.24%	148.16%	170.06%	153.39%	137.77%	184.85%
76.66%	76.76%	75.35%	75.53%	75.79%	74.28%	72.50%	71.36%	73.97%
12.67	13.43	14.17	12.88	13.21	15.78	16.91	16.17	14.88
10.67	9.81	10.48	11.59	11.00	9.94	10.59	12.47	11.15
$ 47,031	$ 53,431	$ 56,116	$ 77,050	$ 63,060	$ 54,284	$ 57,881	$ 70,396	$ 63,240
62,965	70,447	75,285	131,599	87,673	74,040	82,469	110,130	86,666
40,196	45,536	46,464	83,152	54,908	46,543	52,102	67,403	52,037
451,218	620,361	521,259	718,308	666,520	447,357	456,944	515,895	543,792
52,553	60,134	63,623	86,698	71,009	63,059	67,876	81,598	70,715
66,986	80,727	80,859	164,318	96,932	79,497	93,556	131,573	93,216
42,778	51,709	49,924	104,238	60,892	50,055	58,859	80,091	56,129
614,351	578,979	674,661	682,030	$1,042,480	474,059	521,565	416,477	600,468
425%	409%	419%	394%	397%	418%	478%	396%	361%
39.89%	42.49%	39.37%	39.79%	40.91%	39.18%	39.49%	39.78%	36.40%
87.85	87.33	85.11	91.55	86.56	102.40	100.08	80.42	91.82
$ 18,157	$ 22,595	$ 21,404	$ 29,309	$ 25,181	$ 20,272	$ 22,488	$ 27,008	$ 22,005
16,379	21,083	18,781	34,378	24,703	18,716	20,544	27,393	21,178
23,538	26,911	29,345	32,559	30,495	23,358	25,083	28,940	21,114
25,774	31,568	34,207	41,828	35,153	27,837	29,967	30,584	28,762
$ 14,335	$ 17,214	$ 16,354	$ 23,254	$ 20,304	$ 16,135	$ 18,460	$ 21,410	$ 19,404
13,706	16,712	15,564	32,966	22,147	15,705	18,464	25,070	19,052
11,868	13,687	14,829	16,692	14,266	12,487	14,033	14,546	14,720
20,756	25,295	26,447	32,516	26,278	22,201	23,362	23,730	25,318
34,210	36,859	42,715	48,978	44,682	36,198	32,986	39,578	32,949
23,513	26,673	26,662	30,245	27,023	24,218	20,649	21,730	28,559
40,900	41,365	52,110	58,423	57,081	38,309	38,126	47,666	33,186
28,401	37,447	39,082	44,989	38,232	28,061	23,376	27,188	27,175
51.5	56.2	50.9	54.5	54.7	58.3	53.1	57.0	71.7
23.66%	22.78%	24.00%	23.36%	22.85%	24.04%	24.67%	25.15%	24.74%
$ 16,741	$ 18,731	$ 19,535	$ 40,712	$ 21,743	$ 19,338	$ 23,454	$ 32,664	$ 23,319
4.40%	3.41%	4.27%	4.26%	3.66%	5.31%	3.71%	4.41%	6.67%
$ 2,411	$ 1,959	$ 2,604	$ 4,234	$ 2,624	$ 3,238	$ 2,115	$ 3,192	$ 4,575

ALL PRINTERS BY GEOGRAPHIC REGION

RETURN ON INVESTMENT - PER $100 OF SALES

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
INVESTMENT			
Current Assets:			
Cash	$ 3.64	$ 5.65	$ 4.09
Receivables	14.54	14.33	15.07
Inventories	6.76	5.92	6.12
Marketable securities	2.20	0.10	1.08
Other current assets	2.00	1.28	1.31
	29.14	27.28	27.67
Plant Investment:			
Land and building	5.49	4.58	5.63
Machinery and equipment	32.64	30.34	28.02
Other fixed assets	3.79	4.43	2.47
	41.92	39.35	36.12
Non-Current Assets	2.22	0.99	1.64
TOTAL INVESTMENT	73.28	67.62	65.43
INVESTMENT TURNOVER PER $100 OF SALES	136.46%	147.89%	152.84%
EARNINGS			
Cost of Product	$76.78	$74.41	$77.33
Selling Expenses	7.50	7.41	7.49
Administrative Expenses	10.94	11.43	9.69
	95.22	93.25	94.51
Income Before Interest, Other Income, and Taxes	4.78	6.75	5.49
RETURN ON INVESTMENT - INVESTMENT TURNOVER X INCOME	6.52%	9.98%	8.39%

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
$ 3.69	$ 2.21	$ 4.07	$ 3.16	$ 2.82	$ 4.89	$ 3.84	$ 3.88	$ 1.82
13.78	15.06	13.70	14.67	14.65	15.65	13.98	15.10	19.10
6.50	7.06	7.32	8.52	6.89	6.67	4.72	7.20	8.03
0.60	0.97	1.37	0.66	1.91	0.47	0.29	0.62	0.71
1.66	2.02	1.17	1.28	1.06	1.44	1.51	1.89	2.09
26.23	27.32	27.63	28.29	27.33	29.12	24.34	28.69	31.75
4.40	10.43	5.66	7.05	7.32	13.88	2.89	5.59	6.96
32.65	29.53	28.99	29.56	31.06	31.32	26.55	28.63	31.38
3.97	2.85	3.92	2.91	2.58	4.01	3.52	3.99	2.18
41.02	42.81	38.57	39.32	40.96	49.21	32.96	38.21	40.52
1.51	1.90	1.74	2.57	2.40	2.09	3.08	3.33	2.69
68.76	72.03	67.94	70.38	70.69	80.42	60.38	70.23	74.96
145.43%	138.83%	147.19%	142.09%	141.46%	124.35%	165.62%	142.39%	133.40%
$76.34	$77.22	$76.00	$76.64	$77.15	$75.96	$75.33	$74.85	$75.26
7.94	7.73	8.21	8.88	7.52	7.23	8.37	7.98	7.37
9.87	10.03	10.83	9.16	9.98	10.82	11.38	11.46	8.98
94.15	94.98	95.04	94.68	94.65	94.01	95.08	94.29	91.61
5.85	5.02	4.96	5.32	5.35	5.99	4.92	5.71	8.39
8.51%	6.97%	7.30%	7.56%	7.57%	7.45%	8.15%	8.13%	11.19%

ABSOLUTE DATA

	NUMBER OF PARTICIPATING FIRMS	AVERAGE FIRM REPORTING** TOTAL ASSETS	SALES OR VALUE OF PRODUCTION	TOTAL INCOME
TOTAL - ALL PRINTING FIRMS	944	$2,673,000	$4,887,000	$278,000
ALL PRINTERS BY GEOGRAPHIC REGION				
New England and Up-State New York	83	2,251,000	3,978,000	157,000
Metropolitan New York and New Jersey	16	3,177,000	6,593,000	506,000
Eastern Penna., Maryland and D.C.	74	3,322,000	6,511,000	360,000
Southeast Atlantic	89	1,814,000	3,783,000	231,000
East North Central	37	2,279,000	4,752,000	225,000
South Central	86	2,705,000	5,201,000	281,000
Chicago Area	73	3,690,000	7,039,000	417,000
West North Central	60	4,304,000	7,058,000	434,000
Plains and Mountain States	116	1,486,000	2,924,000	164,000
Pacific Southwest	71	2,696,000	5,375,000	239,000
Pacific Northwest	67	2,244,000	3,820,000	120,000
Canada	172	3,020,000	4,776,000	353,000

HOW THE NUMBERS ARE COMPUTED

The PIA Ratios are computed by the method of relative or common size. With this method each company's dollars are converted into a percentage to the total. Then these percentages are added in total and within a given sales class. This is a very simple way of avoiding what is known as self-weighting when various magnitudes are involved. With this method each company is given equal weight regardless of their size.

The following example illustrates how this calculation process eliminates the problem of the ratios' giving inordinate weight to the results of very large firms.

Firm	Sales	Factory Payroll	% of Sales: Firm's Ratio Factory Payroll	% of Sales: PIA Ratios Factory Payroll
A	$ 200,000	$ 60,000	30.0%	
B	500,000	100,000	20.0	
C	8,000,000	975,000	12.2	
			62.2% divided by 3 = 20.7%	

** Unlike the ratios shown in this book, these figures are arithmetic averages.